

Energy Use

DID YOU KNOW...

- *Sandia's average monthly electric and natural gas bill is \$1,125,000.*
- *More than 70% of New Mexico's electricity is generated from coal.*
- *Sandia still uses 2/3 of its weekday peak power at night and on weekends.*

PETL lights left on at night



President's Directive on Energy

On September 26, 2005, President George W. Bush issued a memorandum directing Heads of Federal Departments and Agencies to take "appropriate actions to conserve natural gas, electricity, gasoline, and diesel fuel to the maximum extent consistent with effective discharge of public responsibilities".

Energy Management Program

The Sandia National Laboratories/New Mexico (SNL/NM) Energy Management Program was established in 1993 to reduce our energy to support the overall laboratory mission and to meet specific goals mandated by the Department of Energy.

Energy "Myth"



Myth: Leaving fluorescent lights on is better than frequently flipping them off, because of inrush current each time turned on and reduced lamp life and ballast life.

Answer: The inrush current lasts only 0.01 second and you can flip off lights up to 6 times daily before lamp replacement costs negate energy savings. There is no impact to ballast life by frequent on/off. Rule of thumb: flip lights off any time you'll be away from office > 20 minutes.

Myth: Leaving computers on continuously and using screen savers is better than shutting them off.

Answer: Turning off computers at least every day before leaving saves energy and does not damage the CPU. Screen savers consume the same wattage as an operating monitor. Enabling the "sleep" mode allows the monitor to go to near zero when not needed.

Energy "Vampires"

Electrical appliances that you may think you have turned "off" waste a surprising amount of energy.

These are called "vampire" appliances because they still draw electricity when you think they are switched "off".

"Vampire" appliances draw power 24-hours-a-day, 7-days-a-week. Look around, do you have anything that:

- Needs reprogramming after the power goes out?
- Can be controlled with a remote control?
- Has a light that burns all day?
- Charges a cordless item?

In the office, "vampire" appliances include telephones, which need power for their speed dial memories and caller ID display. Many of our power strips have an indicator light. Our computers, printers, and copiers tend to sit on stand-by, yet continue to draw power.

In the home, "vampire" appliances can include microwaves, cable boxes, televisions, VCRs, stereo systems, and standard ovens (gas ovens too, if they have a clock).

Where possible, simply unplug appliances when you are away. It can be made simple by assembling several small appliances (e.g. speakers, printer) on one power strip.



For additional EMS information,
please visit:
<http://EMS.sandia.gov>



Energy Use

You can Help!

At the office,

1. Turn off office equipment/powered appliances not in use when you leave for the day, especially on weekends.
2. Be aware of standby loads or energy vampires. When there is a pilot light on, energy is being used.
3. Turn off lights. Empty rooms love the dark.
4. Be an Energy Nag, Miser, or simply conserve and pass on the word.



At home,

1. Set your water heater to the lowest temperature that will give you sufficient hot water.
2. Set your heating thermostat to 68° Fahrenheit or lower when you are out.
3. Purchase products that have earned the ENERGY STAR ® logo (e.g., programmable thermostat, washer, dryer, refrigerator computer, monitor, dishwasher, etc.).
4. Run your washer/dryer and dishwasher only with a full load.
5. Caulk, and weather-strip to reduce air leakage around doors and windows, baseboards, and wherever pipes, wires, and vents enter a home.

Save Up To \$45 Per Computer Annually Through Power Management

ENERGY STAR Power Management features – place inactive monitors and computers into a low-power sleep mode. A simple touch of the mouse or keyboard “wakes” the computer and monitor in seconds.

- **Monitor power management (MPM)** – can save up to \$30 per monitor annually by placing your inactive monitors into low-power sleep mode.
- **Computer power management (CPM)** – places inactive computers into a low-powered sleep mode, which can save up to an additional \$15 per computer annually.



The Energy Nag says, “If it’s not in use, turn off the juice!”


<http://www-irm.sandia.gov/esh/p2/nag.htm>

For more information on how to enable MPM, please contact the Computer Support Unit (CSU) @ 845-2243 or visit <http://csu.sandia.gov/>

For more information on Energy Saver tips visit <http://www.eere.energy.gov/consumer/tips/>

SNL/NM Energy Management Program <http://www-irm.sandia.gov/facilities/energymgt/index.htm>

For more information on ENERGY STAR visit <http://www.energystar.gov/>

 Simple ways to save SNL \$500,000 in FY 2006	SNL saves per year
Shut off office equipment each night and weekend; (100 SF of office)	\$30
Shut off office lighting each night and weekend; (100 SF of office)	\$30
Use natural light (and turning off office lights)	\$15
Close fume hood when not in use (where possible)	\$300/- \$1000
Turn off the office copier every night and weekend	\$25-\$40
Turn off conference room lights each night and weekend	\$30-\$115
Turn off lights in large hallways (Who owns the light switch anyway?)	\$200
Turn off lights in large open office areas at night and weekends	\$1000 - \$2200
Lab’s population shutting off 10-15% of after hours energy use	\$300K - \$450K per year

For more information, contact:
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